

Net Returns to Management Negative in 1996 but Considerably Improved

Area planted to sorghum rose almost 40 percent from 1995 to 13 million acres in 1996. Production also rose 75 percent to just over 800 million bushels. Because of higher production, the average harvest-month price fell from \$2.75 per bushel in 1995 to \$2.70 in 1996. The average yield rose about 21 percent, and gross value and returns rose as well. Variable cash expenses rose somewhat from 1995, but fixed cash and economic costs were relatively unchanged. Although residual returns to management and risk remained negative, they were considerably improved over previous years.

Area planted to sorghum in 1996 rose dramatically from a year earlier in Kansas and Texas. Kansas growers planted 4.8 million acres, up from 3.3 million in 1995, while Texas growers seeded 4.4 million acres, up from 2.7 million. Production nearly doubled in Kansas—rising from 173.6 million bushels in 1995 to 354 million in 1996. Production in Texas rose from 129.6 million bushels to 182.4 million. Oklahoma's crop increased from 12.8 million bushels to 28.9 million, and Nebraska's rose from 56.8 million to 97.8

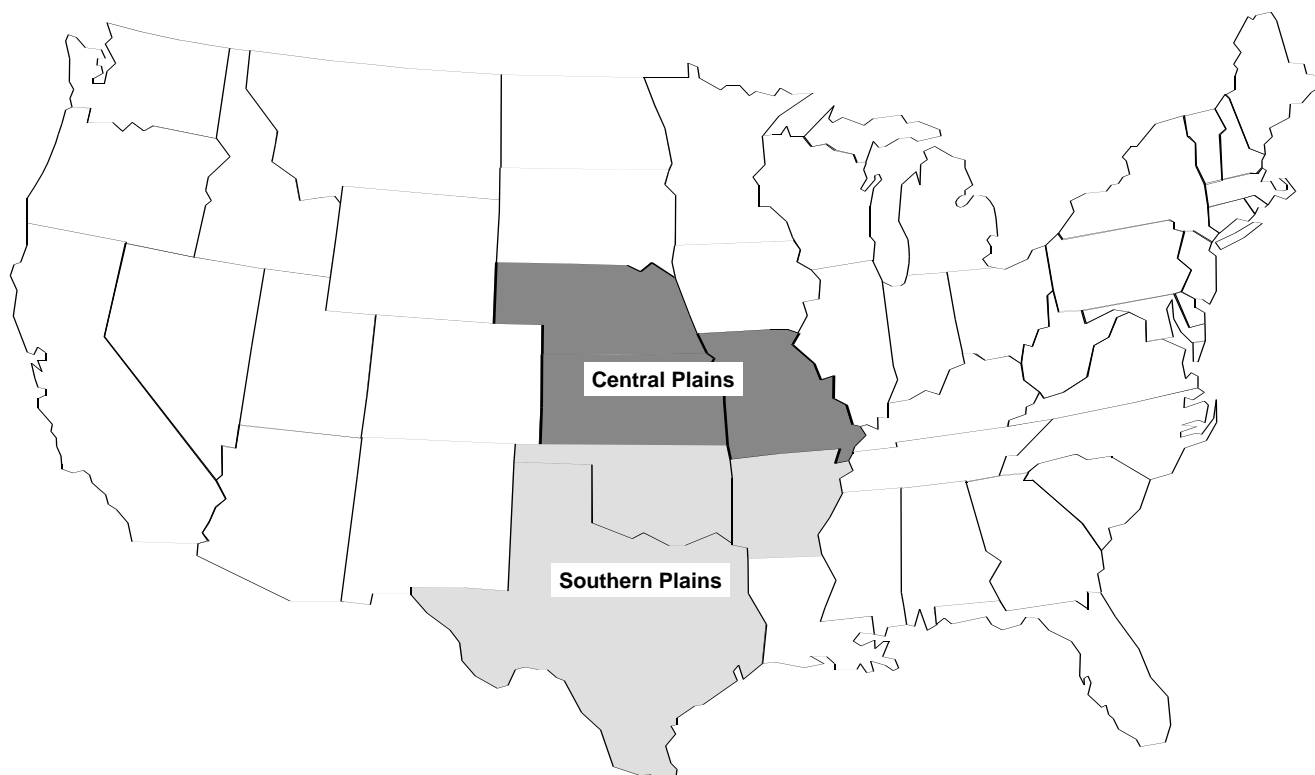
million bushels. Yields in Kansas, Missouri, and Nebraska returned to their higher 1994 levels.

Regionally, yields were slightly lower in the Southern Plains and considerably higher in the Central Plains than in 1995. Cash production costs were higher in both regions in 1996. Costs for fertilizer, chemicals, fuel, and repairs accounted for 81 percent of variable costs in the Central Plains and 77 percent in the Southern Plains.

Variable costs in 1996 varied from 96 cents per bushel in the Central Plains to \$2.10 in the Southern Plains, where irrigation was used more frequently. Cash costs varied from \$1.36 per bushel in the Central Plains to \$2.63 in the Southern Plains.

Although vastly improved from 1995, residual returns to management and risk remained negative in the Southern Plains. Residual returns in the Central Plains were positive in 1996 due to the higher gross value of production.

Figure 8-6
Grain sorghum production regions



Notes: Shading and patterns indicate production regions where producers were surveyed in 1995 about production practices and costs of production. Production regions are defined for each crop based on common cultural practices.

Table 8-6A—Grain sorghum production cash costs and returns, excluding direct government payments, 1995-96

Item	United States		Southern Plains		Central Plains	
	1995	1996	1995	1996	1995	1996
<i>Dollars per planted acre</i>						
Gross value of production (excluding direct government payments):						
Sorghum	141.87	170.91	154.58	193.37	123.05	141.80
Total, gross value of production	141.87	170.91	154.58	193.37	123.05	141.80
Cash expenses:						
Seed	5.42	6.00	5.12	5.07	5.90	7.21
Fertilizer, lime, and gypsum	19.19	17.99	19.56	18.06	18.62	17.90
Chemicals	12.63	12.28	14.87	14.66	9.15	9.21
Custom operations ¹	5.07	5.26	4.36	4.69	6.19	5.99
Fuel, lube, and electricity	14.13	17.95	8.61	12.31	22.74	25.24
Repairs	15.65	16.95	14.74	16.77	17.05	17.18
Hired labor	4.99	5.42	3.82	4.16	6.81	7.03
Other variable cash expenses ²	0.00	0.00	0.00	0.00	0.00	0.00
Total, variable cash expenses	77.08	81.85	71.08	75.72	86.46	89.76
General farm overhead	9.13	8.88	10.18	10.07	7.48	7.35
Taxes and insurance	9.13	9.27	10.21	10.25	7.43	8.00
Interest	9.30	9.61	10.89	11.57	6.83	7.07
Total, fixed cash expenses	27.56	27.76	31.28	31.89	21.74	22.42
Total, cash expenses	104.64	109.61	102.36	107.61	108.20	112.18
Gross value of production less cash expenses	37.23	61.30	52.22	85.76	14.85	29.62
Harvest-period price (dollars/bu)	2.75	2.70	2.81	2.44	2.66	3.32
Yield (bu/planted acre)	51.59	63.30	55.01	79.25	46.26	42.71

Table 8-6B—Grain sorghum production economic costs and returns, excluding direct government payments, 1995-96

Item	United States		Southern Plains		Central Plains	
	1995	1996	1995	1996	1995	1996
<i>Dollars per planted acre</i>						
Gross value of production (excluding direct government payments):						
Sorghum	141.87	170.91	154.58	193.37	123.05	141.80
Total, gross value of production	141.87	170.91	154.58	193.37	123.05	141.80
Economic (full ownership) costs:						
Variable cash expenses	77.08	81.85	71.08	75.72	86.46	89.76
General farm overhead	9.13	8.88	10.18	10.07	7.48	7.35
Taxes and insurance	9.13	9.27	10.21	10.25	7.43	8.00
Capital replacement	28.73	31.13	27.45	31.28	30.72	30.93
Operating capital	2.16	2.08	1.99	1.93	2.42	2.28
Other nonland capital	12.65	12.98	12.18	13.12	13.39	12.79
Land	31.81	25.25	36.39	30.52	24.66	18.44
Unpaid labor	9.33	9.89	9.01	9.62	9.82	10.24
Total, economic (full ownership) costs	180.02	181.33	178.49	182.51	182.38	179.79
Residual returns to management and risk	-38.15	-10.42	-23.91	10.86	-59.33	-37.99
Harvest-period price (dollars/bu)	2.75	2.70	2.81	2.44	2.66	3.32
Yield (bu/planted acre)	51.59	63.30	55.01	79.25	46.26	42.71

¹Cost of custom operations and technical services.

²Cost of purchased irrigation water.

Source: Economic Research Service, U.S. Department of Agriculture.